Appl. No. 10/597,236
Amdt. dated April 4, 2012
Office Action dated November 8, 2011

PATENT

REMARKS

Claims 1, 5-17, 24, 25, 27-35, 41, 42 and 45-53 have been examined. Claims 32 and 49 have been amended. Reconsideration of the claims, as amended, is respectfully requested.

Claim Objections

Claims 49, 5-8 and 52 have been objected to for an informality. Claim 49 has been amended to depend from claim 1, thereby overcoming this objection.

Claim Rejections – 35 USC 103

Claims 1, 9-17, 24-25, 27-35 have been rejected under 35 USC 102(b) as being anticipated by US 6,377983 (Cohen). This rejection is respectfully traversed because Cohen fails to teach a step of "searching the data storage system to match the received second query to the first search query" as recited in claim 1.

More specifically, Cohen describes methods and systems for capturing and generating information about a user's access and use of data on a computer system and making such useful information available to others. Cohen associates a content area with a sequence of documents used by the first user based on the captured information and then makes those sequences or documents available to other users. Cohen goes to great lengths to explain a process by which a second user can find documents previously accessed by an expert user. For instance, see col. 4 lines 3 to 15, or the "Scenarios" described from col. 9 line 1 to line 54.

None of these methods teaches or suggests matching a "received second query to the first search query". Instead, the "query" in Cohen is made against a traditional inverted index of the document contents, or labels or topic clusters drawn from the documents or webpages themselves or as search on the expert's details. In contrast, claim 1 includes a step of "searching the data storage system to match the received second query to the first search query". This is not taught or suggested in Cohen.

Applicant notes that at col. 5, line 64 Cohen mentions that additional information, including "search terms input by the user into a search engine" can be stored. But Cohen does

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not teach why this is stored, how it is stored, or that it is used in any way during indexing or retrieval of data for subsequent users.

The search conducted with claim 1 of the present invention is against the search queries entered by other users, not the document contents. This makes for a more accurate match with prior search trails. Even if one were to implement a system as taught by Cohen and included search terms as part of the topic clusters, these search keywords would be drowned out the multitude of other keywords found in the documents themselves.

Moreover, since Cohen teaches storing all usage trails not only search trails, some of the documents, edits and accesses recorded in Cohen will have no search context whatsoever. This will fill the database of usage trails in Cohen with "noise" from other documents and would make it almost impossible to achieve an important objective of the claimed method – namely, associating search keywords with URLs that have been found useful – and providing this data to later users with the same search.

Because Cohen fails to teach a step of "searching the data storage system to match the received second query to the first search query", claim 1 is distinguishable without amendment. It is therefore respectfully requested that the section 102 rejection of claim 1 and dependent claims 9-17, 24, 25, 27-31 be withdrawn.

As now amendment, independent claim 32 recites: "each search trail corresponding to a respective search query." Claim 32 further recites that the server system is programmed to provide a trail searcher for searching the data storage system to match a received search query to a search query corresponding to at least one search trail to identify at least one related search trail stored on the server. As previously described in connection with claim 1, the Cohen reference fails to describe a process where a search is performed to match a received search query to a search query corresponding to a search trail. Hence, claim 32 as now amended is clearly distinguishable over Cohen for at least the reasons previously described in connection with claim 1. Claims 33-35 depend from claim 1 and are likewise distinguishable.

Claim Rejections – 35 USC 103

Claims 5-8, 41, 42, 45-53 have been rejected under 35 USC 103(a) as being unpatentable over Cohen in view of US 7725526 (Kraft). This rejection is respectfully traversed.

In relation to claims 5 to 7 and 41 to 49, the applicant submits that the client-side query analyzer in Kraft is naive. It does not teach "adding a routine to each form object to enable interception of the completed form object upon submission" as claimed in claim 5. The system of Kraft is unable to determine which parameter in the query string is the search query entered by the user. It merely detects the presence of a '?' character in a URL query string and believes that what follows in the search term. Kraft does not further analyze the URL query string. Accordingly, Kraft slavishly records all URL query strings that contain a '?' character on the client. Hence, claim 5 is distinguishable for at least this reason.

In relation to claims 6 and 7, the Kraft system is implemented as a Proxy. This proxy does not interact directly with the browser document object model in response to user actions. Instead, the Kraft system slavishly records all the web traffic. As such, claims 6 and 7 are distinguishable for this additional reason.

In relation to claims 28, 29 and 53, neither Kraft nor Cohen teach a process for reinforcing the link between a search keyword and a URL, by increasing trail weight in response to a number of times a step on the trail is visited. In fact Cohen at, Col 7. lines 35-50 teaches away from this approach by teaching that only new web pages not previously accessed pages are recorded in the usage trail.

In contrast, embodiments of the present invention seek to associate users' search keywords with destination URLs. Thus, embodiments of the present invention do not consider the contents of the documents at all. Rather, it aims to distill the associations between a user's search keywords and destination URLs. In this way, through usage, these embodiments of the present invention converge on more relevant associations between search keywords and a destination URL. This associative method of information retrieval is based purely on user behavior and does not rely on traditional information retrieval techniques based on document contents (e.g., inverted indices, topic clustering, etc.). This approach presents a unique advantage

in that it can retrieve relevant URLs based on search keywords that are not necessarily found in the text of a webpage or other document.

Moreover, in some embodiments of the present invention (e.g., those claimed in claims 29 and 53) these search keyword associations increase over time. There is an ongoing feedback loop of subsequent search behavior that causes a document to be continually "tagged" with the search keywords used to find the document. This reinforces the relevance association between search keyword and destination URL. Importantly, this association is an association between the preferred/actual terms users use to describe a document when searching and is not limited to the terms found within the documents. Thus, claims 28, 29 and 53 are distinguishable for these additional reasons.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Further, the Commissioner is hereby authorized to charge any additional fees or credit any overpayment in connection with this paper to Deposit Account No. 20-1430.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

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